

REMARKS

Favorable consideration and allowance of the claims of the present application are respectfully requested.

In the present Official Action, Claims 1-12 and 14-30 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Particularly, the Examiner indicates that the “inclusive and conditions” attached to the switching criteria features set forth in Claims 1, 10 and 18 and 27 are not explicitly described in the specification.

Further in the Office Action, Claims 1, 2, 4, 6-10, 12-14, 17-21 and 23-28 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over by Ishiyama et al. (US Patent Application Pub. No. US 2005/0102415) (“Ishiyama”) in view of Zhu et al. (US Patent Application Pub. No. US 2003/0167339) (“Zhu”) and Patel. Et al. (US Patent No. 7,149,778) (“Patel”).

Further in the Office Action, Claims 3 and 20 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ishiyama in view of Zhu and Patel and in further view of Ito et al. (US Patent Pub. US 2003/0036921)(“Ito”).

Claims 5 and 22 were further rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ishiyama in view of Zhu and Patel and further in view of “Official Notice”.

Claim 11 was further rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ishiyama in view of Zhu and Patel and further in view of O’Brien et al. (US Patent No. 6,587,831) (“O’Brien”).

Claims 15, 16, 29 and 30 were further rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ishiyama in view of Zhu and Patel and further in view of Frengut et al. (US Patent No. US 2002/0046099) ("Frengut").

With respect to the rejections of Claims 1, 10, 18 and 27 in particular under 35 U.S.C. §112, first paragraph, applicants respectfully disagree. Particularly, Claim 1 is being amended to set forth the language "determining compliance of service-level guarantees according to a switching criterion". The switching criterion, it is submitted, is as set forth in Claims 10 and 27 and in each of the independent claims as originally filed and do not constitute new matter. Claim 18 is being similarly amended. Moreover, Claims 1 and 18 are being further amended to set forth the language as claimed in originally filed Claim 10 directed to the switching criterion as including one or more selected from the group comprising:

"the relative prevalence of advertisements or SPAM, the relative usability of a user interface provided at computer device, the relative cost of the service provided by said second service provider as compared to a cost of the service provided by first service provider, a relative cognitive load of a user, and, a relative security of said service provided by said second service as compared to the service provided by first service provider"

The Examiner further indicates that the support for the inclusive and conditions of such features of switching criteria recited in the claims 1, 10 and 18 and 27 were not explicitly described in the specification. However, respectfully, the claim limitations detailing the criteria to determine when switching from one service to another is explicitly described in the specification generally at paragraph [0016] of the originally filed specification. A further example of the present specification providing 35 U.S.C. §112, first paragraph support, is found in the present specification at paragraph [0025] describing a switch providing service in the

context of an e-mail service and provides support for “the relative prevalence of advertisements or SPAM” limitation in Claims 1 and 18. Likewise, a switch providing service described in the context of network security is described in the present specification at paragraph [0026] and provides support for “the relative security of said service provided by said second service as compared to the service provided by first service provider” limitation in Claims 1 and 18.

In view of the foregoing discussion and amendments to Claims 1 and 18, the Examiner is respectfully requested to withdraw the rejection of Claims 1 and 18 under 35 U.S.C. §112, first paragraph, and to withdraw the rejections of all claims dependent thereon.

With respect to the rejections of Claims 1, 2, 4, 6-10, 12-14, 17-21 and 23-28 under 35 U.S.C. §103(a) as allegedly unpatentable over by Ishiyama in view of Zhu and Patel, applicants respectfully disagree.

As a first distinction, the examiner rejects the present claims in view of Ishiyama, Zhu and Patel and asserts that said monitoring including accessing internal functioning of a service is taught in Ishiyama at paragraphs [0064] and [0066]. However, these cited paragraphs concern *only* connectivity and not internal functioning as the Claims 1 and 18 currently set forth. Connectivity can be affected by many problems, including a failure of the communications network between the router and the ISP. Thus, it is respectfully submitted that the Examiner’s asserting that monitoring connectivity is equivalent to monitoring internal functioning is incorrect. Ishiyama at paragraph [0066] even states clearly that “it is possible to receive ... a state of the communication path that is further upstream of the connected ISP...”.

Moreover, in the office action, the examiner asserts that Ishiyama teaches switching based on service-level guarantees. Applicants respectfully disagree. In fact, Ishiyama teaches *only* connectivity. The difference between a service-level guarantee and connectivity alone is

that connectivity is binary: either a device is connected, or it is not. The more general concern of service-level guarantees is quantitative: for example, if a response time rises above a certain threshold, then the service-level guarantee can be said not to be met. Ishiyama apparently is silent as to service level guarantees, and does not even teach nor describe quantitative service-level guarantees whether by measuring the bandwidth and latency of the communication and deciding that at some levels the communication is not good enough to support useful work, which is testament that Ishiyama did not contemplate teaching switching based on service-level guarantees.

On page 5 of the office action, with respect to the limitation directed to "transferring state information..." the Examiner asserts that Ishiyama teaches transferring state information associated with the user's use of the service." From a reading Ishiyama appears to teach that *only* the state information present on the user's computer device is maintained in Ishiyama. However, the state information present at the switched-from ISP is not transferred to the switched-to ISP and is not maintained. The present invention rather teaches and claims a more comprehensive solution.

Further in the office action, with respect to the rejection of Claims 1 and 18, the examiner appears to believe that the service provided by the switched-from ISP is terminated in Ishiyama. Respectfully, this is not the case as there appears no teaching nor suggestion of a mechanism in Ishiyama to notify the switched-from ISP that its service is to be terminated. Thus, its service is continued, but without connectivity to the client. In an example implementation, for ISPs that charge by the minute, it is important to notify a switched-from ISP immediately in order not to have to pay for services that cannot be consumed.

In the last paragraph of page 5 and continuing on page 6 the examiner cites Ishiyama as teaching switching criteria. Respectfully, this is not the case. A careful reading of the cited paragraph [0062] of Ishiyama reveals that Ishiyama is not concerned with switching criteria but rather the choice of an initial connection. This is confirmed by Ishiyama's use of the word "selection" in distinction to switching. Thus, the cited paragraph does not read on switching criterion as now claimed in amended Claims 1 and 18.

As a further distinction, on page 6 of the Office Action, the examiner cites Zhu paragraph [0096] as concerning replication of session information. The topology of Zhu's system, however, does not match the topology assumed by Ishiyama. In Ishiyama, data flows directly from source to ISP through the router, while in Zhu, data flows through the switched-from server CB server 380B to the switched-to server CB server 380C. This topological difference is significant: the system taught by Zhu is not appropriate to the problem addressed by Ishiyama, and thus combining the two systems would not be obvious to one skilled in the art. This is doubly true since the switching criterion may be related to system overload, which would also affect the ability of the switched-from ISP to relay data to the switched-to ISP.

Moreover, in further distinction, on page 7 of the office action, the examiner cites Patel, who is merely observing that users sometimes do switch ISPs to use an email address that is not as widely known to spammers. This is an observation, not a teaching, and it concerns switching at the discretion of the user, not automatic transparent switching, which is the goal of the present invention. There is no system nor method disclosed for accomplishing this switching because it is accomplished in Patel by the simplest means possible: the user stops using one ISP and starts using another, with all of the pain that comes with no carryover of state from the switched-from

ISP to the switched-to ISP. Patel does not provide any clue to one skilled in the art as to how to accomplish this switching in an automated, transparent manner.

Continuing on page 7 the examiner cites Ishiyama paragraph [0050] in which Ishiyama describes an "ISP state management unit 34" for "managing a state of a target ISP." Note that this unit in fact manages a state of the router, not of the ISP: it is the router's view of the connectivity to a particular ISP that concerns Ishiyama. Claims 1 and 18, as amended, concerns a state of the ISP, such as its current responsiveness, the level of service it guarantees, and many other such components of ISP state.

With respect to the specific rejection of claim 8, on page 8 of the office action, the examiner further asserts that the transparent switching provided by Ishiyama also transfers service properties. While some might consider the destination address to be a service property, the thrust of the present invention is not directed to such trivial service properties, which are easily transferred; but rather concerned with service properties that in current practice are exquisitely visible to end users. One extreme example concerns an ISP who offers web-based email, including folders for the filing of read mail. Switching to another ISP, even one that offers the same service, means abandoning an entire email history. The intent of the present invention is, to the extent possible, to enable transparent switching from one ISP to another, transferring the state of the ISP email service to the extent that the email history would appear at the switched-to ISP.

Applicants' respectfully assert that that this use of the term "service properties" is substantially different from another use of the same term to refer to the service destination address which is, after all, hidden from the end user by the domain name service.

With respect to the specific rejection of claim 9, the examiner uses Ishiyama's teaching of the provision of Internet access services as allegedly teaching the claim's recitation of Web Services. Web Services are a much higher-level construct than "Internet access." Web Services can and are used on networks other than the Internet. The messaging protocols of Web Services include, but are not limited to, messaging protocols supported on the Internet.

With respect to the specific rejection of claim 10, the Examiner uses Ishiyama's teaching of an example of a disconnected ISP as one in which the service is degraded. However, an ISP's service can be degraded without disconnection. Thus the terms "degraded" and "disconnected" are not equivalent. The present application is thus usable in a broader range of environments.

With respect to the specific rejection of claim 12, the examiner makes the same error as indicated above -- namely, a confusion between switching criteria and connection criteria.

With respect to the specific rejection of claim 14, on page 9 of the office action, applicant's respectfully fail to see where Ishiyama describes a switching provider at all. The switching provider is the owner and manager of Ishiyama's router, and there are many business models and entities who might find switching services advantageous as a business offering.

With respect to the specific rejection of claim 17, Ishiyama's Figure 1 identifies system elements as dedicated components, while peer-to-peer nodes implement many functions without central control.

With respect to the specific rejection of claims 3 and 20, on page 10 of the office action, the examiner rejects claims 3 and 20, citing Ishiyama's use of the word "fee" in paragraph [0062]. Applicants note that Ishiyama is addressing selecting an initial connection, not providing a switching criterion.

With respect to the specific rejection of Claims 15, 16, 29 and 30 citing Frengut, on page 13 of the office action. The passage cited in Frengut at page 2, paragraph [0026] concerns an attempt by a system to meet certain preferences and selection criteria, and not to assess user satisfaction levels and certainly not to do this using biometric means. The difference between satisfying user preferences and obtaining user satisfaction is significant: users often specify conflicting or incomplete preferences, and even if a system is capable of satisfying them, there is no guarantee of actual user satisfaction.

Thus, in view of the foregoing, the Examiner is respectfully requested to withdraw the rejections of amended Claims 1 and 18 under 35 U.S.C. §103(a) and, additionally, withdraw the rejections of all remaining Claims under 35 U.S.C. §103(a).

This application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that he call applicant's attorney at (516) 742-4343.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steven Fischman", with a stylized flourish at the end.

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